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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,168	07/11/2001	Hitoshi Katayama	K&Y-156	8121

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EXAMINER

CANTELMO, GREGG

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 04/28/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,168

Applicant(s)

KATAYAMA, HITOSHI

Examiner

Gregg Cantelmo

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/11/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Priority

1. This application is filed under 35 U.S.C. 371 and claims priority to PCT Application No. PCT/JP00/01859 filed March 27, 2000.

Response to Preliminary Amendment

2. The preliminary amendment received July 11, 2001 has been entered.

Information Disclosure Statement

3. The information disclosure statement filed July 11, 2001 has been placed in the application file and the information referred to therein has been considered as to the merits.

Drawings

4. Figures 1, 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
5. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

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information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. For example on page 1 of the instant specification, JP Pub No. 07-143372 is recited but is not listed on an information disclosure statement.

Specification

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: that the projections have terminals along with another terminal disposed between the projections. See item 10b below for further explanation.

Claim Interpretation

7. Claims 1-4 recite the phrase "video camera etc." and the term "etc." in the claims is interpreted to encompass other devices which employ batteries. The specification lists other electrical devices: VTR, audio recorder, audio and video editor, audio and video distribution transmitter and receiver, a lighting fixture *and so on*. Thus while the claim first recites a video camera, the "etc." part does not limit the device which employs the battery arrangement of claims 1-4 only to a video camera nor only to those other devices listed on page 11 of the specification since the listing includes the phrase "and so on."

Claim Objections

8. Claims 3 and 4 objected to because of the following informalities: the term “theses” in the last line of each of claims 3 and 4 should be “these”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 2 recites a circuit, terminal and averaging circuit built into the battery. However claim 2 establishes that there are two batteries present in the system. The first as set forth in line 1 of claim 1 and the second being “another battery” in line 3 of claim 2. It is unclear which battery is being referred to in the last line of claim 2. For purposes of interpretation the Examiner is reading this limitation to be drawn to the first battery as defined by claim 1. However Applicant is advised to clearly define the battery recited in the last line of claim 2.
- b. Claims 3 and 4 are not clear. First it is unclear how plural projections have “a terminal” it should be projections having respective terminals it is unclear as to what side the term “fitting ... on the top” refers to. Further with respect to

this the term "on the top and projections of said protrusion parts, respectively" is unclear with respect to the arrangement Applicant is attempting to claim. For example the neither the claims nor the specification appear to clearly define "projections of said protrusions". Fig. 2 shows that the projections and protrusions are separate. Additionally the term "terminal" used in claims 3 and 4 is not clear and may be misleading. First the claims recite that the protrusions have terminals. Then the claim recites that there is another terminal placed between the projections. In reviewing the specification, the projections 26 (Fig. 2) do not have terminals for connection but are disposed adjacent to and are separate from terminals 24. Thus it is unclear as to what exactly claims 3 and 4 are claiming since the language therein is ambiguous and apparently divergent from that which is taught in the specification.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 06-104814-A (JP '814).

JP '814 discloses a battery 12 capable of being removable mounted in a coupling surface of a video camera, etc. (device 1), characterized in that in the battery 12

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provided with a v-shaped engagement part 13 for fitting into a v-shaped receiving groove 8 provided in the coupling surface of the video camera, etc. (device 1), in a dovetail manner on one side, and a v-shaped receiving groove 17 with the same shape as that of the v-shaped receiving groove 8 provided in the coupling surface of the video camera, etc. (device 1), is provided on the other side opposite to one side of the battery 12 to be mounted in the video camera, etc. (device 1) in order to join another battery having the v-shaped engagement part in a dovetail joint manner (Fig. 1 as applied to claim 1).

As discussed above with respect to the phrase "video camera etc." the term "etc" is not explicitly limited in the claim and thus can be any electrical device including communications equipment.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '814 in view of JP 11-174135-A (JP '135) or JP 09-035762-A (JP '762).

The teachings of claim 1 have been discussed above and are incorporated herein.

The difference between JP '814 and instant claim 2 is that JP '814 does not explicitly disclose a circuit for outputting a self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance output circuit and an input terminal to produce an output.

JP '135 discloses a circuit for outputting self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance output circuit and an input terminal to produce an output (abstract and Figs. 1 and 5).

JP '762 discloses a circuit for outputting self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance output circuit and an input terminal to produce an output (abstract and Figs. 1, 2 and 3).

The motivation for using the arrangement of either JP '135 or JP '762 in the battery of JP '814 is that it drives the remaining capacity calculation circuit at the optimum voltage and discharge in good balance in a battery stack (JP '762) and provides a device for measuring the capacity of a battery where more accurate remaining capacity is calculated and an excessive discharge or the like for a specific battery due to reducing in the remaining capacity can be eliminated (JP '135).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '814 by using a circuit for outputting a self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance

output circuit and an input terminal to produce an output the arrangement as disclosed by either JP '135 or JP '762 since it would have driven the remaining capacity calculation circuit at the optimum voltage and discharge in good balance in a battery stack and additionally provided a device for measuring the capacity of a battery where more accurate remaining capacity would have been calculated and an excessive discharge or the like for a specific battery due to reducing in the remaining capacity would have been eliminated.

Conclusion

15. Although no prior art rejection has been applied to claims 3 and 4, these claims lack sufficient clarity for determining suitable applicability of prior art to the limitations set forth therein and also lack sufficient clarity for determining patentability. Such determinations may be made in response by Applicant further clarifying the issues pertaining to claims 3 and 4.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (703) 305-0635. The examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (703) 308-2383. FAX communications should be sent to the appropriate FAX number: (703) 872-9311 for After Final Responses only; (703) 872-9310 for all other responses. FAXES received after 4 p.m. will not be processed until the following business day. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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Gregg Cantelmo
Patent Examiner
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April 24, 2003